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IDS FORM	Application Number	10/790,959
	Filing Date	March 1, 2004
INFORMATION DISCLOSURE STATEMENT BY APPARCANT	First Named Inventor	Takemori TAKAYAMA
(J. 1900)	Group Art Unit	1742
OCT 16 2007	Examiner Name	Deborah YEE
Sheet 1	Attorney Docket Number	03773/HG

U.S. PATENT DOCUMENTS

nits* N	o' Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date мм-DD-YYYY	Relevant Portion
/D.Y./					
10.1./	6,899,774	B2	KOMATSU LTD	05-31-2005	
	RE 28,523		REPUBLIC STEEL CORPORATION	08-19-1975	
	5,131,965	A	CATERPILLAR INC	07-21-1992	
Ψ	4,162,157		USA/DEPT OF ENERGY	07-24-1979	

FOREIGN PATENT DOCUMENTS

Exam Inits'	Cite No ¹	Offc'	Document Number4	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
/D.Y./	/D.Y./ JP 45		49-7117	A	MITSUBISHI STEEL MFG CO LTD	01-22-1974		а
		JP	54-10923	B2	NIPPON STEEL CORP	05-10-1979		a
		JP	54-23329	B2	KOMATSU LTD	08-13-1979		a
		JP	55-12184	B2	TOYOTA MOTOR CORP	03-31-1980		a
		JP	57-10177	B2	TOPY INDUSTRIES	02-25-1982		a
		JР	57-16186	B2	KAWASAKI HEAVY IND LTD	03-08-1977		b
		JP	57-19183	B2	NIPPON STEEL CORP	03-23-1978		b
V		JP	55-2789	A	KOMATSU LTD	01-10-1980		b
Examin			/Deborah Yee/	*380000	Date	06/04/2008		

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a ENGLISH-LANGUAGE TRANSLATION OF TITLE PAGE ONLY ENCLOSED; b ENGLISH-LANGUAGE ABSTRACT ENCLOSED

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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE 10/790.959 Application Number TDS FORM March 1, 2004 Filing Date INFORMATION DISCLOSURE Takemori TAKAYAMA First Named Inventor STATEMENT BY APPLICANT 1742 Group Art Unit Deborah YEE Examiner Name 2 03773/HG Sheet of Attorney Docket Number U.S. PATENT DOCUMENTS Kind Name of Patentee or Publication Relevant Exam. Cite Inits* Document Number Code² Applicant No: Date MM-DD-YYYY Portion FOREIGN PATENT DOCUMENTS Kind Name of Patentee or Publication Relevant Exam Cite Inits' Offc' Document Number4 Code⁵ Applicant Date MM-DD-YYYY Portion тe /D.Y./ JP 57-89424 SUMITOMO METAL IND 06-03-1982 LTD JP 57-174434 KOMATSII LTD 10-27-1982 a JР 59-107066 MITSUBISHI HEAVY 06-21-1984 IND LTD 59-136451 Δ MITSUBISHI HEAVY 08-06-1984 IND LTD σT. 5-32462 רם NIPPON STEEL CORP 07-07-1989 JР 7-74380 NIPPON STEEL CORP 10-02-1991 JP 5-59427 R2 MITA IND CO LTD 03-30-1984 JP 3227730 **B**2 DAIDO STEEL CO LTD 03-02-1993 JP 55-12177 B2 KOMATSU LTD 01-10-1977 ,TP 54-124816 MITSUBISHI HEAVY 09-28-1979 TND LTD JΡ 54-143715 MITSURISHI HEAVY 11-09-1979 IND LTD Examiner /Deborah Yee/ Date 06/04/2008 Signature Considered

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					U.S.	PATE	ENT DOCUMENTS		***************************************		
Exam. Inits*	Cite No ¹	Docum	Document Number			Kind Code ²	Name of Patentee of Applicant	or	Publication Date MM-DD-YYYY	Relevant Portion	
/D.Y./		2004	/004775	7		A1	ТАКАУАМА		03-11-2004		
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Exam Inits'	Cit No ¹	Offc,	Documen	nt Number	1	Kind Code ⁵	Name of Patentee of Applicant	or	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
/D.Y./		JР	2002-1	121645			NKK BARS & SHAPE CO LTD	s	04-26-2002		a
		JР	60-215	5743			SUMITOMO METAL INDUSTRIES CO LT	D	10-29-1985		a
		JР	05-078	3781			SUMITOMO METAL I	ND	03-30-1993		a
		JP	9-1114	103			TOA STEEL CO LTD		04-28-1997		a
		JP	8-1094	135			TOA STEEL CO LTD		04-30-1996		а
V	1	JP	48-236	517		A	KOMATSU LTD		03-27-1973		

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Considered

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/D.Y./		J.R. DAVIS, "ASM METALS HANDBOOK", Second Edition, (1998)							

Date

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